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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,763	12/20/2001	Daniel F. Mulhauser	US010642	4060

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

BRADFORD, RODERICK D

ART UNIT PAPER NUMBER

3762

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/024,763

Applicant(s)

MULHAUSER, DANIEL F.

Examiner

Roderick Bradford

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 30-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05/06/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 1-29, drawn to a circuit for delivering electrical energy, classified in class 607, subclass 4.
- II. Claims 30-35, drawn to a method for regulating current delivered to a patient, classified in class 607, subclass 7.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice.

The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as not requiring inserting a current regulator circuit between the low potential node of the h-bridge but rather connected to the controller.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation on June 10, 2004 a provisional election was made with traverse to prosecute the invention of Group 1, claims 1-29.

Affirmation of this election must be made by applicant in replying to this Office

action. Claims 30-35 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-8, 13-18, 27 and 28 rejected under 35 U.S.C. 102(e) as being anticipated by Sullivan et al. U.S. Patent No. 6,208,895.

Referring to claims 1, 2, 15, 17, 27 and 28, Sullivan discloses defibrillator pacer for delivering electrical energy to a patient comprising:

a power source

an h-bridge comprising a plurality of switches which control the delivery of the electrical energy (column 5, lines 34-36)

a storage circuit having a first and second terminal , the storage circuit operable to store electrical energy (24)

a h-bridge circuit coupled, to the first terminal of the storage circuit, adapted to couple with the patient and operable to deliver electrical current from the storage circuit energy to the patient (fig. 4)

a current control circuit, coupled with the h-bridge circuit and operable to electrically connect the h-bridge circuit with the second terminal of the storage circuit to regulate the delivery of the electrical energy to the patient (fig. 2)

a first resistor connected in series with the h-bridge which limits current through the patient (fig. 4)

a first transistor, an amplifier and a second resistor arranged as a voltage to current follower and a second transistor bypass the first resistor in response to a second control voltage to change the scale factor (figs 4 and 5).

Referring to claim 4, wherein the current control signal has a first value where a first pair of the plurality of switches is operated and a second value where a second pair of the plurality of switches is operated (column 5 line 52-column 6 line 25).

Referring to claim 5, wherein the current control signal is a waveform having a shape of a desired current waveform to be delivered to the patient (fig. 7).

Referring to claim 6, wherein the current waveform has a first shape where a first pair of the plurality of switches is operated and a second shape where a second pair of plurality of switches is operated (fig. 7).

Referring to claim 7, wherein the shape of the control signal waveform is a truncated exponential waveform (figs. 7, 9 and 13).

Referring to claim 8, wherein the shapes of the first and second waveforms are truncated exponential waveform (figs. 7, 9 and 13).

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Referring to claim 14, wherein the plurality of switches and the current control circuit are operated to deliver the electrical energy as a biphasic pulse to the patient (column 3 line 59-column 4 line 6).

Referring to claim 16, wherein the current control circuit operates in a linear mode and responsive to the control voltage (column 2, lines 47-51).

Referring to claim 18, further comprising a controller which controls the h-bridge to control the polarity of the electrical current delivered to the patient and determines the control voltage (abstract).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9-12; 19, 20 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al. U.S. Patent No. 6,208,895.

Referring to claims 9-12, Sullivan discloses the claimed invention except for wherein the shape of the control signal waveform is half sinusoidal or rectangular and wherein the first and second waveforms are half sinusoidal or rectangular. It would have been an obvious matter of design choice to one skilled in the art to modify the teachings of Sullivan to include wherein the shape of the control signal waveform is half sinusoidal or rectangular and wherein the first and second waveforms are half sinusoidal or rectangular, since applicant

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has not disclosed that wherein the shape of the control signal waveform is half sinusoidal or rectangular and wherein the first and second waveforms are half sinusoidal or rectangular provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any wave shapes, such as the wave shapes as taught by Sullivan as a mean to control the waveform being applied to the patient.

Referring to claims 19 and 20, Sullivan discloses the claimed invention except for wherein the control voltage is a fixed value or a time varying waveform. It would have been obvious to one having ordinary skill in the art to modify the teachings of Sullivan to include wherein the control voltage is a fixed value or a time varying waveform, since it was well known in the art to use a fixed value or time varying waveforms as a means of providing various power to the circuit.

Referring to claim 22-26, Sullivan discloses the claimed invention except for the time varying waveform is a decaying exponential waveform, a half sinusoidal waveform, rectangular waveform, rounded rectangular waveform or a damped sinusoidal waveform. It would have been an obvious matter of design choice to one skilled in the art to modify the teachings of Sullivan to include wherein the time varying waveform is a decaying exponential waveform, a half sinusoidal waveform, rectangular waveform, rounded rectangular waveform or a damped sinusoidal waveform, since applicant has not disclosed that wherein the time varying waveform is a decaying exponential waveform, a half sinusoidal waveform, rectangular waveform, rounded rectangular waveform or a damped

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sinusoidal waveform provides any criticality and/or unexpected results and it appears that the invention would perform equally well with any time varying waveform, such as the waveform as taught by Sullivan.

### **Conclusion**

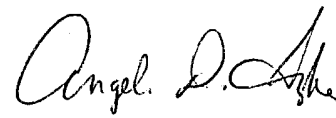
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roderick Bradford whose telephone number is (703) 305-3287. The examiner can normally be reached on Monday - Friday 7 a.m. - 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (703) 308-5181. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



R.B.



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